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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/238,859	01/28/1999	ULRICH SIMON	GK-ZEL-3039	5760

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EXAMINER

VERBITSKY, GAIL KAPLAN

ART UNIT	PAPER NUMBER
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2859

DATE MAILED: 12/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/238,859

Applicant(s)

SIMON ET AL.

Examiner

Gail Verbitsky

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,4-6,8 and 9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2,4-6,8 and 9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Drawings

1. The drawings are objected to because it appears that the numeral 36 as described in the specification, is not shown in the drawings. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 2-6, 8-9 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In this case:

Claim 2: It appears that "regulation to a constant value", as stated in line 9, is not described in the specification.

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Claim 9: It appears that “regulation to a constant value” and driving the AOTF “by a constant frequency” is not described in the specification.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 4-6, 8-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over The Prior Art as stated by applicant in pages 1-2 of the specification [hereinafter Prior art] in view of Kemeny et al. [hereinafter Kemeny].

Prior Art discloses a laser scanning microscope with an AOTF, particularly the need to avoid temperature fluctuations when using the AOTF.

Prior art does not disclose a temperature gauge provided in the environment of the AOTF, a heater and a heater controller to control the AOTF temperature at a constant value.

Kemeny discloses in Figs. 6-8 a device to control an AOTF comprising an AOTF 102, a heater (one of cooling and heating) 164, a temperature sensor (gauge) 167, 170 connected to a heater controller (temperature controller and its power supply) 166, 166a. The temperature gauge is located within the vicinity of the AOTF. The heater is capable of maintaining the temperature of the AOTF within 1°C of the desired temperature which is above 35° (col. 8, lines 16-19),

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therefore, the heater controller, in a broad sense, regulates the temperature of the AOTF to a constant value. Output lines 190a and 190b are carrying a signal from the temperature sensors to a controller (driving unit) 300. Cooling of the AOTF is achieved simply by shutting the heater off (entire col. 8). Kemeny suggests to drive the AOTF at any desired frequency (col. 14, lines 22-23). Kemeny also suggests to drive the AOTF at a particular (in a broad sense, constant for at least some period of time) frequency to tune a particular wavelength band (col. 11, lines 58-59). The application of the particular (constant) frequency to the AOTF changes the direction of the propagation and polarization of the narrow wavelength band of the incident radiation, yielding two tuned radiation beams which diverge from each other and non-tuned radiation. The tuned wavelength can be used to analyze a sample (col. 2, lines 20-31). As shown in Fig. 7, the temperature gauge 167, 170 is connected to the heater 164 by an electronic control for regulating the temperature (power supply, col. 8, line 46) 166a (and temperature controller 166), and the electronic control for regulating temperature (power supply) 166a is located outside of the AOTF environment 102.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to add a temperature sensor, a heater and a heater regulator, as taught by Kemeny, to the device with the AOTF, disclosed by the Prior Art, in order to be able to provide corrections for variations in the temperature of the AOTF (col. 13, lines 33-34), as already suggested by Kemeny.

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It would have also been obvious to one of ordinary skill in the art at the time the invention was made to modify the device disclosed by the Prior Art so as to drive the AOTF with a particular (constant) frequency, as taught by Kemeny, because the application of the particular (constant) frequency to the AOTF changes the direction of the propagation and polarization of the narrow wavelength band of the incident radiation, yielding two tuned radiation beams which diverge from each other and non-tuned radiation, with the tuned radiation beams being then used to analyze a sample (col. 2, lines 20-31), as already suggested by Kemeny.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Conclusion

7. Any inquiry concerning this documentation should be directed to the Examiner Verbitsky whose telephone number is (703) 306-5473.

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Any inquiry of general nature or related to the status of this application should be directed to the Group Receptionist whose telephone number is (703) 308-0956.

GKV

05 November 2003


Gail Verbitsky, Patent Examiner, TC 2800